

Regarding Point V.

AP20 Rec'd PCT/PTO 10-11-2006

- 1 The present report refers to the following document:
D1: EP 1 073 827 A (SIEMENS AG) 7 February 2001 (2001-02-07)
- 2 The document D1 is considered to be the nearest prior art. It discloses (the references in brackets refer to this document; see figure 2):
a turbine blade with a blade leaf arranged along a blade axis and with a platform region which, arranged at the root of the blade leaf, has a platform extending transversely with respect to the blade axis, the platform having a first platform wall not bearing the blade leaf and a second platform wall bearing the blade leaf, the first platform wall having in its run an aerodynamic rounding at the root of the blade leaf along a transition from the blade leaf to the platform.

The subject of the independent claim 1 differs from this in that:

the second platform wall has in its run, with respect to the first platform wall and in continuation of the blade leaf, a set-back step.
- 2.1 The subject of claim 1 is therefore novel (PCT Article 33(2)). The object to be achieved by means of the present invention may therefore be seen in:

achieving improved cooling in the root region of the blade leaf, without the thermomechanical properties of the root of the blade leaf being adversely influenced.
- 2.2 The solution proposed for this object in claim 1 of the present application is based on inventive activity (PCT Article 33(3)) for the following reasons:

on account of the set-back step, the second platform wall makes available sufficient interspace which can be acted upon with cooling medium for the non-bearing platform wall. By means of this concept, the second platform wall bearing the blade leaf can be optimized in configuration according to thermomechanical criteria.

- 2.3 Claims 2-10 are dependent on claim 1 and consequently likewise fulfill the requirements of the PCT as regards novelty and inventive activity.